THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

EDITED BY

J. V. C. SMITH, M.D.

Whole No. 1244. WEDNESDAY, DECEMBER 17, 1851. Vol. XLV. No. 20.

CONTENTS.

MEDICAL JOURNAL ADVERTISING SHEET.

THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. XLV. WEDNESDAY, DECEMBER 17, 1851. No. 20.

OBSERVATIONS ON THE TEAS OF COMMERCE.

BY R. WARINGTON, F. C. S.

In my previous communication to the Society on this subject, in February, 1844 (Memoirs and Proceedings of the Chemical Society, ii. 73), I endeavored to show that there exist two distinct kinds of green tea, known in commerce as *glazed* and *unglazed*; that the former is colored by the Chinese with a mixture of Prussian blue and gypsum, to which a yellow vegetable coloring matter is sometimes added, while the latter are merely dusted with a small quantity of gypsum; that in the specimen of the so-called Canton gunpowder, this glazing or facing is carried to the maximum. I also mentioned, that I had never met with a sample of green tea in which the blue tint was given by means of indigo. Since the publication of that paper, I have been in communication with several parties of great experience in this subject, from whom I have received much additional information, which, with several experimental points of interest that have come under my own immediate observation, will form the subject of the present paper.

The first point to which I wish to call the attention of the Society is, the question of the blue coloring matter used by the Chinese for coloring the green teas being Prussian blue, because some doubts have been thrown on this subject from various quarters. Mr. Bruce thus states (Report on the Manufacture of Teas, &c., by C. A. Bruce, Aug. 16, 1839):—"The Chinese call the former (the indigo) *youngtin*, the latter (the sulphate of lime) *acco*." Now I am favored with the opinion of Mr. J. Reeves on this point, whose knowledge and experience render him most competent to decide in such a case; he believes that indigo is *never* employed for coloring used on tea, that the term youngtin, as used by Mr. Bruce, should be yong-teen, *foreign blue*, the name given by the Chinese to Prussian blue, in contradistinction to Too-teen, *native blue* or *indigo*; this, I think, is very conclusive evidence, and shows that Mr. Bruce's statement was erroneous.

In another quarter a surmise has also been published on this same point. Mr. Fortune, in his entertaining work (Three Years' Wanderings in the Northern Provinces of China, by Robert Fortune) on China, says, speaking of the ingredients used in dyeing the northern green teas for the foreign market, page 201:—"There is a vegetable dye, obtained

from *Isatis Indigotica*, much used in the northern districts, and called Tein-ching, and it is not unlikely that it may be the substance which is employed;" again, at page 307—"I am very much inclined to believe that this (the Tein-ching) is the dye used to color the green teas which are manufactured in the north of China, for the English and American markets." This question, however, I think is now satisfactorily settled, and the experimental evidence I had adduced of the material being Prussian blue of a darker or paler tint, placed beyond a doubt by a positive demonstration; for Mr. Fortune has forwarded from the north of China for the Industrial Exhibition, specimens of these materials, which from their appearance, there can be no hesitation in stating, are fibrous gypsum (calcined), turmeric root and Prussian blue; the latter of a bright pale tint, most likely from admixture with alumina or porcelain-clay, which admixture may account for the alumina and silica found as stated in my previous paper, and the presence of which was then attributed possibly to the employment of kaolin or agalmatolite.

Mr. J. R. Reeves, in a letter to my friend Mr. Thompson, dated July 1, 1844, commenting on my paper, says:—"Mr. Warington's experiments have led him to correct results as to the substances used, which I know to be Prussian blue, gypsum (fibrous), and turmeric; the second being sulphate of lime; and the last, the 'yellow, or orange-colored vegetable substance,' which Mr. W. does not otherwise name. That the coloring is not intended as an adulteration, I feel quite sure. It is given to suit the capricious taste of the foreign buyers, *who judge of an article used as a drink by the eye instead of the palate.* You well know how little the London dealers, even now, like the yellowish appearance of uncolored green tea. The Americans, a few years since, carried the dislike even farther than the English, and therefore the Chinese merchant had scarcely any chance of selling his tea unless he gave it a 'face' that would suit *their fancy.* The small quantity of the coloring matter used, must preclude the idea of adulteration as a matter of profit." Mr. J. Reeves states, "that in the East India Company's time, gypsum and Prussian blue were sometimes used upon hyson teas, Tien Hing using the first on his pale, bright hyson; Lum Hing, the latter on his dark, bright leaf; but these were only in minute quantities, just sufficient to produce an uniform face."

It is still a question of interest, which I before alluded to, whether the gypsum in its *calcined* state is not used for the absorption of the last portions of moisture, and allowing the tea the better to withstand the damp of the sea voyage. Through the kindness of Dr. Royle, I have received, since my last communication, a sample of green tea from the Kemaon district, in the Himalayas, which is quite free from any facing, as are also the green teas of Java, a large number of which I have had the opportunity of examining, and which are exceedingly clean and genuine in their appearance and character.

On Black and Green Teas.—Although the preparation of green and black tea from the respective plants, the *Thea Viridis* and the *Thea Bohea*, has been warmly advocated by many botanists, yet it is now, I believe, pretty generally admitted by all parties, that both green and

black teas can be and are made, indiscriminately, from the same parcel of leaves, taken from the same species of plant. It is also well known to all persons, that the infusions from these teas have marked differences of color and of flavor, and that the effects produced on some constitutions by green tea, such as nervous irritability, sleeplessness, &c., are very distinct from those of black tea. Their characteristic physical differences are too well known to require any comment, but they have peculiar chemical properties to which we shall have occasion to allude more particularly presently, and which have always been attributed by chemists to the effect of high heat in the process of manufacture.

The question presents itself then—from whence do these distinguishing peculiarities arise, and to what are they to be attributed? From observations made in other directions, in the course of the routine work of the establishment to which I am attached, I had formed in my own mind certain conclusions on this subject. I allude to the exsiccation of medicinal herbs; these are for the most part nitrogenous plants, as the *Atropa belladonna*, the *Hyoscyamus niger*, the *Conium maculatum*, and others. The plants are brought to us by the growers or collectors from the country, tied up in bundles, and when they arrive fresh and cool they dry of a good *bright green* color; but, on the contrary, it is found that if they are delayed in their transit, or remain in a confined state for too long a period, they become heated, from a species of spontaneous fermentation, and when loosened and spread open emit vapors, and are sensibly warm to the hand; when such plants are dried, the whole of the *green color* is found to have been destroyed, and a *red-brown* and sometimes a *blackish-brown result* is obtained. I had also noticed that a clear infusion of such leaves evaporated carefully to dryness was not *all* redissolved by *water*, but left a quantity of *brown oxidized extractive matter*, to which the denomination *apotheme* has been applied by some chemists; a similar result is obtained by the evaporation of an infusion of black tea. The same action takes place by the exposure of the infusions of many vegetable substances to the oxidizing influence of the atmosphere; they become darkened on the surface, and this gradually spreads through the solution, and on evaporation the same *oxidized extractive matter* will remain insoluble in water. Again, I had found that the green teas, when wetted and re-dried, with exposure to the air, were nearly as dark in color as the ordinary black teas. From these observations, therefore, I was induced to believe that the peculiar characters and chemical differences which distinguish black tea from green, were to be attributed to a species of heating or fermentation, accompanied with oxidation by exposure to the air, and not to its being submitted to a higher temperature in the process of drying, as had been generally concluded. My opinion was partly confirmed by ascertaining from parties conversant with the Chinese manufacture, that the leaves for the black teas were always allowed to remain exposed to the air in mass, for some time before they were roasted. Mr. Ball, in his valuable work (An Account of the Cultivation and Manufacture of Tea in China, by Samuel Ball, Esq.) on the manufacture of tea, has described in detail the whole routine of these interesting processes, fully confirming my pre-

conceived opinions, and of which I cannot do better than give you a summary. Some of the facts, I believe, had been published in Batavia in 1844, by Mr. Jacobson (Handboek v. d. Kult. en Fabrik v. Thee), in the Dutch language. In the preface to his work, Mr. Ball says :— "It will be seen by dates incidentally adverted to, that the facts and most of the materials of this work, were established and collected thirty years ago." "These facts, as well as other materials, were derived from conversation with growers and manipulators from the tea districts ; from written documents furnished by Chinese ; from published works in the same language diligently sought out ; and also from correspondence with a Spanish missionary long resident in the province of Fokim. These were all put into their present form full twenty years ago, and were read to one or two friends during my residence in China."—"They were not, however, so arranged, with any view to immediate publication."—"They were thus disposed, as the best mode of recording and keeping together the facts and materials I had collected."—"But it was not till the year 1844, when I received Mr. Jacobson's Handbook on the cultivation of tea in Java, that I found my own views so far confirmed, and my information such as to justify me in bringing my labors to a close."

The processes peculiar to the preparation of black tea, are styled Leang-Ching, To-Ching and Oc-Ching, and these all consist in carefully-watched and regulated processes of *spontaneous heating* or *slow fermentation* of the leaves until a certain degree of fragrance is developed. The leaves are said to *wither* and *give*, and became soft and placid. The utmost care, practical skill and experience are required in the properly conducting these operations, and as soon as the proper point is arrived at, the leaves are to be immediately removed to the Kuo or roasting-pan. After being roasted and rolled two or three times, they are then to be dried, and this is effected in the Poey-long, which consists of a cylinder of basket-work, open at both ends, and covered on the outside with paper ; it is about 2½ feet in height, and 1½ in diameter, which diameter is diminished in the centre like an ordinary dice-box to one foot and a quarter. This stands over and round a small charcoal fire, and is supplied with cross-bars about fourteen inches above the fire, on which an open sieve containing the tea is placed ; and a small aperture about an inch and a half in diameter is made in the centre of the tea with the hand, so that an ascending current of air and the products of the combustion pass through and over the tea contained in the sieve. A circular flat bamboo tray is placed partially over the mouth of this cylinder, and most probably serves to regulate the rapidity of the ascending current, prevent the admission of the cold air to the leaves, and at the same time allow a sufficient outlet for the generated watery vapors and the products of combustion. At the commencement of this operation, the moist leaves are still green and retain their vegetable appearance ; after the drying has continued about half an hour, the leaves are turned, and again submitted to the heat for another half hour ; they are then taken out, rubbed and twisted, and after sifting away the small dust, again returned to the sieve and drying tube. This operation of sifting

is very necessary, to remove any of the small tea or dust which might otherwise fall through the meshes of the sieve on to the fire, and the products of their combustion would deteriorate and spoil the flavor of the tea. The leaves have now begun to assume their black color; the fire is diminished or deadened by ashes; and the operation of rolling, twisting and sifting is repeated once or twice until they have become quite black in color, well twisted, and perfectly dry and crisp. They are then picked, winnowed, and placed in large quantities over a very slow fire for about two hours, the cylinder being closed.

Now, that this black color is not owing to fire is evident; for in cases mentioned by Mr. Ball, where the leaves have been dried in the sun, the same color is obtained; and on the other side, if roasted first, without the process of fermentation or *withering*, and then finished in the Poey-long, a kind of green tea is produced.

In the operations for the manufacture of green tea, on the contrary, the freshly-picked leaves are roasted in the Kuo at once, without delay, at a high temperature; rolled and roasted again and again, assisted sometimes with a fanning operation to drive off the moisture; and always with brisk agitation until the drying is completed.

The marked differences in the mode of manufacture of black and green tea, will, I consider, after what has been stated, fully account for all the variation of physical and chemical properties to which I have before alluded.

Adulteration and Sophistication of Teas.—Since writing my former paper, several teas have come under my notice which must be classed under this head. The first I shall mention is a sophistication which has been carried on in this country to some extent, and consists in giving the appearance of green tea to an imported black tea. The material used as the bodies for this process of manufacture is a tea called scented caper; it is a small, closely-rolled black tea, about the size of small *gunpowder*, and when colored is vended under this latter denomination, the difference in price between the scented caper and this fictitious gunpowder being about 1s. per pound, a margin sufficient to induce the fraud. This manufacture has been carried on, I understand, at Manchester, and was kept as secret as possible; and it was only after considerable trouble that some of my friends succeeded in obtaining two different specimens for me, that could be fully depended on, as originating in this manufactory. It appears that it is generally mixed with other tea, so as to deceive the parties testing it. How this manufactory was conducted I am not prepared to say:—but some preparation of *copper* must have been employed, as the presence of that metal is readily detected in the specimens I received. I believe, however, that this sophistication has ceased.

I have now to call your attention to another adulteration of the most flagrant kind. Two samples of tea, a black and a green, were lately put into my hands by a merchant for examination, the results of which he has allowed me to make public. The black tea was styled *scented caper*; the green, *gunpowder*; and I understand they are usually imported into this country in small chests called catty packages. The ap-

pearance of these teas is remarkable; they are *apparently* exceedingly closely rolled, and very heavy; the reasons for which will be clearly demonstrated. They possess a very fragrant odor. The black tea is in compact granules, like shot of varying size, and presenting a fine glossy lustre of a *very black* hue. The green is also granular and compact, presenting a bright pale-bluish aspect, with a shade of green, and so highly glazed and faced, that the facing rises in clouds of dust when it is agitated or poured from one vessel to another; it even coats the vessels or paper on which it may be poured. On examining these samples, in the manner described in my former paper, to remove this facing, I was struck by the tenacity with which it adhered to the surface, and which I had never remarked in any previous sample, requiring to be soaked for some time in the water before it could be detached; with this precaution, however, the greater part of the facing material was removed. It proved, in the case of the sample of green tea, to be a pale Prussian blue, a yellow vegetable color, which we now know to be turmeric, and a very large proportion of sulphate of lime. The facing from the sample of black tea was *perfectly black* in color, and on examination was found to consist of earthy graphite or black lead. It was observed that during the prolonged soaking operation, to which these teas had been submitted, there was no tendency exhibited in either case to unroll or expand, for a reason which will be presently obvious. One of the samples was therefore treated with hot water, without, however, any portion of a leaf being rendered apparent. It increased in size slightly, was disintegrated, and then it was found that a large quantity of sand and dirt had subsided; this was separated by decantation, and collected; it was found to amount to 1.5 grains from 10 grains of the sample, or 15 in the 100 parts. It was evident, however, that much of the lighter particles must have been lost in the process of decantation; a weighed quantity of the sample was therefore carefully calcined, until the ash was quite white, and the whole of the carbonaceous matter burnt off; it yielded a result equivalent to 37.5 on the 100 parts. During this operation, also, no expansion or uncurling of the leaf, as is generally to be observed when heat is applied to a genuine tea, was seen; in fact, it was quite evident that there was *no leaf to uncurl*, the whole of the tea being in the form of dust. The question next presented itself as to how these materials had been held together, and this was readily solved; for, on examining the infusion resulting from the original soaking of the sample, abundant evidence of gum was exhibited.

The sample of green tea was of a precisely similar kind to the black; it yielded 4.55 grains of ash, &c., from 10 grains of the specimen, or 45.5 per cent. A specimen of Java gunpowder yielded 5 per cent. of ash; so that we have in this sample 40.5 per cent. of dirt and sand over and above the weight of ash yielded by the incineration of a genuine tea.

Thus we have then in these samples a mixture of tea dust with dirt and sand, agglutinated into a mass with a gummy matter, most probably manufactured from rice-flour, then formed into granules of the desired size, and lastly dried and colored, according to the kind required

by the manufacturer, either with black lead, if for black tea ; or with Prussian blue, gypsum, or turmeric, if intended for green.

Since examining these two samples, I have obtained through a friend another specimen of green tea, having a very different appearance ; that is, better manufactured, or rather, I should say, more likely to deceive the customer, from its being made to imitate an *unglazed tea*. It is of a yellowish-green color, scented and granulated as the former samples, and not much dusted ; it yielded 34 per cent. of ash, sand and dirt.

On inquiry, I have learned that about 750,000 lbs. weight of these teas have been imported into this country within the last eighteen months, their introduction being quite of modern origin ; and I understand that attempts have been made to get them passed through the Customs as *manufactured goods*, and not as teas ; a title which they certainly richly merit, although it must be evident, from a moment's consideration, that the revenue would doubtless be defrauded, inasmuch as the consumer would have to buy them as teas from the dealer. It is to be feared, however, that a market for them is found elsewhere. The Chinese, it appears, will not sell them except as teas, and have the candor to specify them as *lie* teas ; and if they are mixed with other teas of low quality, the Chinese merchant gives a certificate, stating the proportion of the *lie tea* present with the genuine leaf. This manufacture and mixing is evidently practised to meet the price of the English merchant. In the case of the above samples, the black is called by the Chinese, *lie flower caper* ; the green, *lie gunpowder* ; the average value is from 8d. to 1s. per lb. The brokers have adopted the curious term *gum and dust*, as applied to these lie teas or their mixtures, a cognomen which at first I had some difficulty in understanding, from the rapid manner in which the two first words were run together.

I will subjoin the results obtained from the careful incineration of a variety of teas, as they may be interesting, for the purpose of comparison, and illustrate the point I have mentioned as to these spurious teas being mixed with genuine ones.

Gunpowder tea, made in Java, gave 5.0 grains of ash in the 100 parts ;	
Gunpowder, during the East India Company's Charter,	5.0
Kemaon hyson,	6.5
Assam hyson,	6.0
Lie gunpowder, No. 1,	45.5
" " No. 2,	34.0
Scented caper,	5.5
Lie flower caper,	37.5
Mixtures containing these lie teas, No. 1,	22.5
" " No. 2,	11.0

Quarterly Journal of the Chemical Society, July 1, 1851.

ON THE RECIPROCAL AGENCIES OF MIND AND MATTER.

[Continued from page 369.]

In taking into consideration the leading characteristics and powerful agency of that gift of God which constitutes the supremacy of man over the rest of animated nature, *The Human Mind*, I began by attempting to

give a sketch (how brief soever and imperfect it might be) of its physiology. I traced a feeble outline of the different leading theories of its mode and power of acting on our corporeal organization; illustrating the abstruse consideration by examples of its effects—its agency in generating disease—and its connection with various mental passions and emotions. I subsequently took a cursory view of the phenomena of its morbid condition, viz., *Insanity*; and I now, in conclusion, propose to resume the subject of what must undoubtedly be considered the most awful visitation which "flesh is heir to." It is much to be lamented that mental alienation, in one form or another, is, and must be, perpetually on the increase, for, endowed, as it is with an hereditary property more inherent than any other malady, it travels (though "haud passibus æquis") with the increase of population; and I believe that I am not guilty of exaggeration when I state that there are now no less than 80,000 persons in Great Britain and Ireland who are thus afflicted. Dr. Burrows, to whom I have frequently alluded, and whose authority is quoted by all modern writers on the subject, calculated that in six-sevenths of the whole of the patients under his charge the cause was traceable to hereditary disposition. Much of this is attributable to intermarriage, especially in the highest circle of society, where corresponding rank is a principal incentive to that state; and it is distressing to observe how the young of both sexes will rush to the embrace of their wealthy and aristocratic admirers, if a coronet but form the crest, though insanity and scrofula may be the supporters to their arms! Should the families of *both* sides be liable to insanity, the probability of this sad heir-loom is, *à fortiori*, doubled, and the manifestation of the disease will probably be doubled also in the offspring of persons

"——————nox daturos
Progeniem vitiosiorem."

Yet, though insanity is ever on the increase, for reasons just stated, it is equally true and satisfactory to feel that, since it has become the subject of deeper study and closer observation, our knowledge of the treatment and general management of its victims is much enlightened and improved. An erroneous idea once prevailed that it was commonly incurable; and the melancholy subjects of this infirmity were shut up in dungeons and dark cells, and subjected to coercion and cruelties on which it is painful to reflect. "Cribb'd, cabin'd and confined," no effort was made to restore their intellect, or contribute to their comfort. They passed their gloomy days and wretched nights, year after year, in straw and darkness, till death in mercy came to liberate them from utter hopelessness and unremitting suffering. No commissioners visited them—no friends were permitted to approach them—and the melancholy all that awaited the poor wretches who were consigned to such infamous Bastilles was

"Lasciate ogni speranza, voi ch' entrate!"

Thanks, however, to the enlarged philanthropy and enlightened aggrandizements of medical science of the present day, this national disgrace is swept away; and the statistics of insanity clearly show that a

very large proportion of the insane are now restored to the light of reason, and to the use of all their faculties. Dr. Prichard states that, in *recent* cases, the proportion was 7 out of 8 in the York Retreat. The different forms of the disease are now more deeply studied; their causes ascertained; their differing character met with appropriate medical and moral treatment; and society is enriched by the resuscitation of many a valuable member that had else been forever lost to it. So amenable, in fact, is it now considered to proper management, that were it possible to obtain an exact comparison of the number of recoveries from other diseases with those of insanity, more would be found to recover from this than from most others. *Early* treatment is, however, so indispensable to rapid recovery, that, were the same prompt attention given to insanity that is generally given to other diseases, still happier results might ensue; but the invasion of mental derangement is often so insidious, and the relatives are so disinclined either to admit its existence, or to reveal it to any one, that the affliction is neglected till its real character becomes unquestionable. But why? as Horace says,

"——————— Nam *cur*
Quæ lædunt oculum festinas demere; si quid
Est *animum*, differs curandi tempus in annum?"

Such, however, is the case—and the malady, becoming more confirmed by duration, is proportionally more difficult of cure. In estimating the prognosis, it will be necessary to review the particular species, the predisposing or exciting causes, the simple or the complicated character, the age, sex and constitution of the patient, as well as the duration of the disease—for the curability mainly, as I say, depends upon these circumstances. I gave a summary of them at the close of my last lecture, in accordance with the observation and experience of others as well as with my own; and the complexion of the malady is now so well understood, that the classification of curable and incurable patients is readily made in every asylum. The cure, however, is not always either permanent or complete. Relapses and recurrences are ever to be apprehended, and each relapse increases the tendency in proportion to the inherent liabilities of the person, or the excitement of the occasional cause. Sometimes recurrences appear to be periodical or intermittent, and I know one case in which the person so afflicted was so aware of the approaching visitation that he always presented himself for admission at a private asylum before each crisis arrived, and requested to be taken care of! The difference between a Relapse and a Recurrence is that, in the former, the symptoms can hardly be said to have entirely disappeared ere they present themselves afresh: in the latter, the restoration to sanity has been complete. The return in both cases generally arises from exposure to what originally induced it, be the cause what it may, and is ushered in by the same symptoms that first indicated its existence. The longer and more complete the recovery, the less is the liability to a recurrence, and as the frequency of recurrence or relapse arises mostly from premature discharge, patients should be considered exempt from every indication some time before their *Exeat* is signed. Recovery from mania is mostly gradual—a mitigation of the intense

symptoms becomes observable, with occasional lucid intervals. Sometimes it is sudden. I gave an instance of it in my last lecture from the abrupt and sudden intimation of a parent's death: but this is not common. The removal of patients from their own home, and from the circle of their own family, will frequently produce a rapid and strong impression on the malady. The new scene, and the attendance of strangers on patients, awaken the inward inquiry into their situation and position; and the raving state which had hitherto prevailed will lapse at once into a state of tranquillity and silence—"a consummation devoutly to be wished." Where, indeed, the excitement is inordinate, seclusion and confinement become indispensable. By seclusion, I mean simply the removal from noise, or any other excitement, to a quiet apartment, till this turbulent manifestation has subsided; and at the Asylum at Hanwell we find that there are apartments on purpose, the walls of which are all padded, and the floor protected by bedding, so that all possibility of a patient injuring himself is entirely obviated, whilst the irritation of coercion is at the same time avoided. These *derniers ressorts* are, of course, only in extreme cases.

It appears extraordinary that an organ like the brain, endowed as it is with all the phenomena which regulate existence, and which is so indispensable to life that even the slightest pressure on it simulates death, and annihilates all power both of mental and bodily action, *can* be so utterly disordered as to require incarceration year after year; and that, notwithstanding the privation of its principal functions, life should be protracted in so many instances to so late a period as maniacs attain—that its intellectual office, in other words, should be totally suspended, and its physical continue unaffected! Yet so it is in some few instances, as the census of the Continental asylums, as well as those of this country, can prove. In the comparatively few cases in which longevity occurs, the solution of the problem must be in the strength of the constitution, the absence of any mental anxiety or feeling, and the regularity of life; nor must we omit the care and attention paid to the health of the inmates of an asylum. Dr. Kitchener used to say that "Glass will last as long as iron, if you take care of it;" and perhaps nothing conduces more to longevity in ourselves (I speak on the presumption of our *not* being insane!) than regularity in our regimen as well as in our diet. The average mortality I believe to be about 1 in 4, and those who feel an interest in the subject have only to inspect the registry of the different asylums and make the calculation: suffice it to say that, in the aggregate (though there are many exceptions), the mortality of the insane very far exceeds that of an opposite condition, independently of the many fatal complications to which insanity is liable. Of these, by far the most frequent are apoplexy and epilepsy, and their concomitants, paralysis and convulsions, and these constitute, moreover, the principal fatal terminations. Very many sink from exhaustion, or, as Dr. Henry Monro terms it, "depression of vitality," accompanied sometimes by a general serous effusion and infiltration—the vital energy is exhausted, and the flame goes out because there is no more oil in the lamp. This is especially the case in melan-

cholia, and also where mania has generated into dementia and idiocy; and inasmuch as insanity is a disease based on debility, such a termination may naturally be apprehended, especially where it has become chronic. In incipient or acute cases there is gradually more or less inflammatory action, with a vascular condition of the brain or its membranes; but then it is of so asthenic a character as not to sanction depletion in its general acceptation. A few leeches to the head may relieve, and very often do relieve, and the same favorable result is derived from cupping, but the lancet is very seldom admissible, even in raving cases, and is now scarcely ever used. In puerperal cases, or in delirium tremens, we may almost pronounce it fatal, and a discrimination must always be made between inflammation and irritation The latter state is that which mostly obtains in insanity, and universally in the forms which I have just mentioned. If blood be abstracted, it very rarely exhibits a buffy coat; and what alteration may be observable occasionally is rather to be explained on the ground of that violent exertion and mental excitement which Hunter affirmed would alter more or less its properties. I attended a case of violent mania not long since, in which blood had been copiously taken by the lancet, and the arm had bled afresh after the surgeon had left the house. I found the patient bathed in profuse perspiration, violent as ever, and restrained by a straight waistcoat; next day he sank and expired. A post-mortem examination was refused. But in very recent cases (and this was only of three days' duration) it frequently happens that no disease of structure can be detected. In no class of diseases is this more frequently the case than in those of the nervous system. The structure of the brain and nerves is so extremely delicate, and there is something so subtle in their mode of action, that considerable disturbance often arises in their functions without our being able to detect a corresponding physical cause. Many of their disorders are consequently termed *functional*, as we cannot demonstrate to any certainty on what species of diseased structure the various forms of insanity depend. The dura mater, except in cases of violent injury, is comparatively little affected.

[To be continued.]

MEDICINA MECHANICA.

BY ISAAC PIDDUCK, M.D.

A BARRISTER complained of numbness in the anterior and middle part of the right thigh. The numbness had existed about four months, sometimes more and sometimes less perceptible, but never entirely removed, giving rise, in the patient's mind, to the fear of paraplegia, or, as he termed it, the barrister's paralysis. As he had formerly suffered from spasmodic stricture and hæmorrhage into the bladder, from passing the catheter, it was supposed that the numbness might be symptomatic of some morbid condition of the urino-genital organs; but only negative replies were elicited by inquiries directed to ascertain that point.

As he was suffering from febrile catarrh, a purgative pill and a sudorific draught were prescribed. From the operation of these remedies

some relief from the numbness was obtained; but in two days it returned in its former degree. It occurred to me, knowing that the occupation of my patient was sedentary, that the numbness might be entirely local, occasioned by sitting in some particular position. On requesting him to show me how he sat at his writing table, I saw instantly how the numbness had been produced and perpetuated from day to day; for instead of sitting opposite, he sat sideways to his table. This position threw the principal weight of his body on the cutaneous branches of the sciatic nerve; and hence the local numbness was clearly traced to partial pressure; and this was further confirmed by a sensation of a glow of warmth following the numbness, after the pressure was removed.

This case is not recorded for the sake of anything extraordinary, either in its nature or its treatment, but for the very opposite reason—the frequency of the cause, and the simplicity of its cure. In anomalous affections of the nerves, unattended by disorders of health, careful investigation frequently leads to a discovery both of the disease and its remedy. The shoemaker, for instance, may suffer from constant gastralgia, owing to the pressure of the *last* on the epigastric region. The scribe may suffer from pain in the left hypochondriac region, from pressure against the desk. Pain may be felt in the knee-joint from pressure of a garter. Headache may arise from occupations occasioning a constant drag upon the cervical region by the prone position of the head, as in milliners and other needle-women. Pains and loss of power and sensibility may be felt in the arms and hands, by sleeping on the back, with the arms crossed over the head. Pains and loss of power may be produced in the fingers and wrist by grasping the pen too firmly in writing. This generally happens to persons whose hand-writing is good, but whose hand has become unsteady: the firm grasp of the pen is for the purpose of steadying the hand. It is probable that to this cause—viz., holding the brush—more than to the poison of lead, the wrist-drop of house-painters may be owing. Pains in the larynx and hoarseness of voice may be occasioned by reading aloud and preaching, with the head bending over the book or manuscript. Cases of this kind are of frequent occurrence; they are intractable to remedies, but speedily cease on avoiding the exciting cause.—*London Lancet.*

ON SUPERNUMERARY FINGERS AND TOES.

BY ROBERT CRAWFORD, M.D., RATHO.

The following facts are worthy of being put upon record. They are curious and interesting in a physiological point of view, as illustrating the *paternal* influence on the *physical* conformation of the offspring, and afford an example of the rare occurrence, that a man may have by different women children with the same malformation, as observed by Luber and Meckel, and, what is more rare still, that a deformity of the *father* may be transmitted to his children, as remarked by Burdoch and Osiander—nay, even to his children's children, disproving the notion frequently entertained, that monstrosities are depend-

ent on the imagination of the mother, frights, &c. &c., and, I may add, are independent of any *original* malformation of the germ, which has been assigned as a cause of these aberrations of nature.

Mrs. T., after a safe and speedy labor, was delivered of her second child, a strong healthy male, on 19th ult. The infant had two supernumerary fingers, one attached by a pellicle to the external aspect of the metacarpo-phalangeal articulation of each little finger. They were well formed, with nails and three phalanges each, but the tendons were in a very rudimentary state. Mr. Craig informs me that his former assistant, Dr. Legat, now in extensive practice at South Shields, attended Mrs. T. in her first labor, and removed from the baby (a female) two supernumerary fingers similarly situated. I have ascertained also from Mr. T., that he had two fingers removed in infancy from the same parts of the hands as his children had, the cicatrices of which he showed me. He has, besides, six toes on each foot. The supernumerary toes project from the dorsum of the middle matatarsal bones. All Mr. T.'s brothers and sisters had more than the natural number of fingers or toes—some both. His father, who had six toes on each foot, by a second marriage had a son and three daughters. There was nothing peculiar about the latter, but the son has the proximal extremity of both great toes single. They appear to bifurcate about the centre—or rather, each forms, *from the centre*, two toes surrounded by one continuous skin, terminating at the distal extremity by two nails each. A sister of Mr. T.'s, married, had four children, of whom one (a daughter) has six toes on each foot.

On the authority of a respected clerical friend, I also state the following facts, which he can personally verify, and which occurred in a parish where he at one time held the *cure* :—

A female relative (either a sister or aunt) of A. B., had a child with a supernumerary finger or toe on each extremity. A. B. married, he had eight children, two of whom had six fingers or toes on each extremity. A young woman in the neighborhood accused A. B. of being the father of a child with which she was pregnant; but this he strenuously denied. The woman brought forth twins, and each had six fingers on each hand, and six toes on each foot—certainly a remarkable coincidence, if the woman's accusation was false; but more probably a strong presumptive proof of the paternity of the offspring. I may add an instructive medico-legal fact, which occurred in the same locality, and which I state on the same authority. A theft was committed, and the authorities, while investigating the matter, detected the impression of a foot on the soil; it presented the appearance of *six toes*, and was traced to the son of A. B. without any difficulty.—*Edinburgh Monthly Journal of Medical Science.*

INCOMPLETE FACIAL PALSY.

[Communicated for the Boston Medical and Surgical Journal.]

Some time since, Mr. A. H., of R., a gentleman past the meridian of life, of active and regular habits and sound health, was thrown from a

wagon and received some severe contusions upon the face and chest. After recovering from the immediate effects of the shock, there remained a slight and partial paralysis of the muscles of the right side of the face, along with a slightly impaired degree of sensation and a consequent feeling of numbness. It became a matter of therapeutical as well as speculative interest to make out the pathology of this affection. The impaired functions seemed to indicate that the nerves of sensation and motion were both implicated. It is to be regretted that the condition of the temporal, masseter and pterygoid muscles, the sense of taste on that side, and the condition of the right eye, were not noted. Local palsy is sometimes attributable to lesion of the portio dura of seventh, an exclusively motor nerve. Careful dissection shows that no portion of this is distributed to the temporal and masseter muscles. If on examination the muscles of mastication had been found to be affected, the probability would be lessened that the seventh nerve was in fault.

In this case the more reasonable conclusion seems to be that the trouble lies with the fifth pair of cranial nerves, or trifacial. This nerve, arising like the spinal by an anterior motor and posterior sensory root, and distributed by the ophthalmic, superior and inferior maxillary branches, the first two of which are sensory and the latter sensory and motor, seems to afford the most satisfactory explanation of the phenomena. The accident from which the affection dates excludes the probability of there being internal cerebral derangement by reason of congestion or plethora. The presumption is, that some compression or partial laceration hinders the perfect functional activity of the nerve. Such a condition seems to be unattended by danger, and precludes the fear of graver consequences ensuing than mere inconvenience. If the shock bruised or displaced the nervous filaments or caused an inflammatory effusion about them, time will probably restore its normal condition, and the effused lymph become absorbed, unaided, or by applications promotive of absorption. If a complete solution of continuity might be restored, it is easy to believe reparation of some divided fibres may be accomplished without difficulty.

E. Sanford.

Wareham, Dec. 3d, 1851.

HEMORRHAGE OF THE LUNGS.

To the Editor of the Boston Medical and Surgical Journal.

Dear Sir,—According to promise, I send, for insertion in your Journal, a report of a case of hemorrhage of the lungs.

Mr. Charles Lloyd, the subject of this report, is a policeman, residing at No. 26 Broome street, New York. He is about 30 years of age, light complexion, dark hair and eyes, sanguine temperament, enthusiastic in any thing he undertakes—a great politician, and addicted to the use of ardent spirits. In the discharge of his duties as a policeman, he is persevering and energetic. Owing to his occupation he is subject to all kinds of exposure, rendering him liable to take cold and to attacks of

fever. During the cholera of the summer of 1849, he was often called on to exert himself in his official capacity in helping persons attacked with that fatal disease while in the street, which greatly prostrated him; and on the occasion of one of his most intimate personal friends being attacked by this fell destroyer, he exerted himself more than usual, which brought on a profuse bleeding from the lungs. The blood spouted from his mouth and nose in a perfect torrent at every respiration. The hemorrhage was such that it would have been impossible for him to live an hour if it continued. Being his family physician, I was sent for; and as soon as possible I went to him. I found him prostrate from excessive loss of blood, and still throwing it up; yet he had a rapid, full pulse, arising from excitement, and his countenance bore that anxious expression peculiar to such cases.

In order to arrest the hemorrhage, I ordered, R. Acetas plumbi, ʒ ss.; acid acetic, ʒ ss.; aqua, ʒ vj. M. Dose—a tablespoonful till the bleeding ceased. R. Lycopus Virginicus, ʒ j.; aqua, ℔ i.; boil for 20 minutes and strain; the decoction to be drank freely. R. Acid acetic, alcohol, aqua, āā ʒ viij.; ice, q. s. M. This lotion was continually applied over the region of the heart and around the throat; and in the course of a few hours the hemorrhage ceased. This left him with an irritable state of the lungs, resulting in inflammation and eventually a slight ulceration. I then placed him under the same treatment used in the case published in this Journal (No. 16, p. 330), with the exception of the morphine in the syrup, for which I now substituted the prepared naphtha. Under this treatment he rapidly recovered and is now well.

I will here remark, that in these cases of disease of the lungs, where ulceration of them has set in of so grave a character as to produce that species of expectoration which is of a dark blue or brown color, and which sinks to the bottom when spit in a tumbler of water, then the use of the naphtha is decidedly dangerous, and in fact will hasten the termination of the case in death. But where the morphine is used instead, with the addition of the paste althæa, the result will generally be favorable. This I say from experience in numerous cases.

Yours respectfully, J. X. Chabert, M.D.

No. 431 *Grand St. N. York.*

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, DECEMBER 17, 1851.

Surgery at the Mass. General Hospital.—To the question, what is doing in surgery in Boston the present season? we reply, that at the Massachusetts General Hospital every medical stranger, while remaining in the city, may have an opportunity of ascertaining for himself. The officers and faculty have uniformly thrown the doors of the operating theatre open to the profession, without any restrictions. There are all the appliances, together with the skill, tact and carefulness, which can be found in any institution in christendom, devoted to the alleviation and cure of the sick and afflicted. Whatever important is doing in surgery, is principally con-

centrated at the hospital, and consequently the facilities and opportunities there afforded for practical knowledge are of the highest order. It is a valuable school of surgery, and has been so through the whole period in which Drs. Warren, Hayward and Townsend, and their associates, have been connected with it.

Morthly Law Magazine.—It may be thought entirely out of place for a professed medical publication to advert to a subject so disconnected with its own legitimate objects as that of law. We consider it allowable, however, to digress occasionally from the grave consideration of medicine and maladies, for the purpose of viewing the progress of other learned professions. Law and lawyers are quite as interesting to the main body of the people, in all civilized nations, as physic and physicians. The study and practice of law is the highway to distinction in states and nations, while that of physic necessarily chains down the attention and efforts to a limited circle of action. The physician may be celebrated at home, yet unknown to the masses a hundred miles from his residence. On the other hand, the accomplished practitioner of law may be without reputation where he is best known, and become the idol of the people at a distance. Medical men are apt to become too circumscribed in their studies. The world is rolling on from day to day, and knowledge is increasing; but some of us pay no regard to any thing that does not have the odor of drugs or a sick room. This leads to a disregard of the general progress and condition of society—every department of which has its high interests and properties, and its influences on individual and the public mind. The literature of the law is extremely rich, because it embraces the varied treasures from every source and region of thought. And because it possesses such elevated charms, exercising the intellect in the most agreeable manner and in the loftiest sphere of mental activity, we recommend to the brotherhood to devote some of the few leisure moments, which may be detached from the pressing and necessary cares of their daily calling, to its perusal. Those of them who have a taste for fine writing, logical argumentation, and moral dignity of expression and sentiment, we would advise to take the United States Monthly Law Magazine, a work published in New York, by John Livingston. It contains a digest of the transactions of the courts; furnishes a synopsis of all the new publications on law, and registers the decisions and opinions of the first legal minds of the age.

Misunderstandings among Medical Men.—An impression is entertained by the public, that physicians are less friendly towards each other, than gentlemen of the professions of law and divinity. And to illustrate this position, they cite the alleged condition of things in many country towns, where two or three physicians, of equal standing, hold each other in sovereign contempt, and for years in succession neither speak to nor recognize each other. This is to some extent true, and it may be added that there are practitioners also in cities who cannot tolerate the least allusion to certain of their brethren without execrating them, and exhibiting a vindictiveness of spirit that must make themselves as unhappy as it does their conduct ridiculous. Local medical organizations have an excellent influence in mitigating some of this jealousy and irascibility of temper. In the country towns, we believe these antipathies, and spiteful exhibitions of a

bad temper badly controlled, are much less frequent than formerly. Different state and local societies have wisely adopted a system of regulations which tends to check the evil, and which is binding alike on all their members. But notwithstanding all these excellent precautions, the leaven of discord shows itself quite too often, and sometimes in places where it would hardly be expected. Letters are not unfrequently received by us, which animadvert with culpable severity on those who would be quite astonished to learn how they were estimated by a rival. We never, under any circumstances, knowingly fan a flame of discord, and therefore invariably refuse to propagate or in any manner be instrumental in perpetuating or giving currency to feuds between professional brethren.

Medical Memoirs.—Several distinguished members of the profession have quite recently died, in different sections of the United States, a history of whose lives would be read with satisfaction. Biographical sketches are difficult to obtain. If those having the opportunity would furnish the leading circumstances in the lives of those physicians who have finished their earthly career, and seasonably transmit to us even the shortest biographical sketch, the obligation would be felt in every medical circle. The autobiography of the late Dr. Knowlton was read with much satisfaction, and Dr. Tabor, in placing it at the disposal of this Journal, contributed to the gratification of a great body of readers.

Saponaceous Dentifrice.—A new and agreeable preparation for cleansing the teeth is beginning to be extensively manufactured by Mr. E. Davis, of Cambridge, Mass. The brush being slightly drawn over the cake, produces a lather of the richness and flavor of cream in the mouth, at the same time thoroughly and effectually accomplishing all that can be desired in cleansing the teeth and gums. This compound is free from the objections urged against the use of some powders, which grind and scratch the enamel, and particles of which work themselves in between the neck of the tooth and the socket, leading to serious results. Mr. Davis has been careful to mix nothing that could possibly act upon the lime of the teeth, and all acids therefore are avoided. We are quite sure this dental soap, for such it really is, will have the approbation of all the dentists; and if so, it must obviously become a universally favorite article.

Kinesipathy.—A new system of medical practice has been introduced into Europe, and it may naturally be expected that it will be imported, and sooner or later practised among us. It would not be strange were it to supersede and take the place of homœopathy, to which it is assimilated in other points besides a common lack of science or reason. It certainly is superior on the score of economy—for though the doses to be shaken in the former are infinitesimal and therefore portable and cheap, in the latter no doses at all are required, and all the mysterious movements and "shakings" are to be accomplished on the sick body itself! The originator of this improved system seems to have been a Swedish fencing master by the name of Ling, who is represented, in the Edinburgh Monthly Journal, to have been an universal genius. He was successively a graduate in theology, a volunteer in the Danish navy, a fencing master (in spite of gout in his arm), a lecturer on old Norse poetry, history and mythology,

a professor of fencing and gymnastics, a student of anatomy, physiology and other sciences, a writer of poetry, and, withal, "a man of high moral tone, pious, sincere and honest," and died in 1839 with the honors of knighthood upon him. His qualifications are therefore unquestionable! All that Ling himself appears to have really accomplished, and probably all that he claimed at first, was set forth in a work published by him, and may be considered as merely an improvement in the practice of gymnastics and calisthenics. Upon this has been engrafted the system of quackery alluded to above. M. Roth, M.D., of London, who comes before us clothed with Ling's mantle, has sent out an octavo of 300 pages, devoted to the treatment of disease by "movements," alias Kinesipathy. His interpretation of the term is as follows:

"By the word *movement*, in a medical and hygienic sense, is to be understood every change of position and difference of form, determined by time and amount, in the whole body, or in any part of it, and which may be produced by the organism itself, or by any animate or inanimate mechanical agent."

In accordance with this definition, there are a great variety of movements—quite as many as there are dilutions and potencies in the homœopathic system—and each and all possess great power over the human body, as is rendered plain by another quotation:

"Whatever exists in our body, either as a part of it or as a foreign substance, must at a certain moment have a definite shape; therefore every change of the space in one part necessarily produces a corresponding one in the surrounding tissues—a change that is thence propagated to the most remote parts of the body, and which depends, with respect to its form, upon the amount of the alteration produced by the first movement."

Lest any one should still be in the dark, however, respecting what kinesipathy really is, we copy the full definition of one of the movements and its effects. It is called the

"*Chopping Movement.*—Chopping consists in alternative short blows, produced by the external sides of both the operator's hands. Choppings are principally used on the posterior surface of the trunk, chest, and also on the limbs. If it is desirable that the succussion produced by this movement shall be less and softer, then the chopping is done with the external edges of the two little fingers, while the other fingers are spread apart, but not kept spasmodically fast, so that they act also by striking upon the little finger.

"Chopping may be confined to one part only, or may be exercised on a larger surface, by constantly moving the position of the hands. The chopping is called a *longitudinal* one, if the hands are moved in the longitudinal direction of the trunk or of the limb; and a *transversal* one, if the blows are executed across the limbs.

"*Effect.*—Choppings produce generally a venous absorption in the capillary texture, not only of the external skin and the tendinous expansions, but also, if more strongly used, in the muscles and bones; in imperfectly paralyzed muscles they excite the innervation both of the motory and sensitive fibres. If directed on the lower extremities, on the soles, they act very well in hæmorrhoidal complaints, headache, &c. On the chest or along the spine, they are efficacious specific movements in certain complaints of the chest, partly by their direct influence on the muscles of the chest, partly by the tremulous, passive vibration communicated to the lungs."

Then there is the "shaking movement," the "rising-up movement," the "letting-down movement," "transversal chopping," "vibration," &c.

&c., which we have not room to describe. These "movements" are all claimed as a remedy in acute as well as chronic diseases. In gonorrhœa, even, cases are brought forward to show their great efficacy. Can quackery and imposture "further go"? It does really seem as though we might hope that "things will come right at last," when such a multitude of absurdities and inconsistencies are countenanced and supported by those who break away from, or who never have entered, the ranks of legitimate and scientific practice.

The Jenner Monument.—As has already been mentioned in the Journal, efforts are now making to collect funds in this country to aid a committee in London in erecting a bronze monument in that city, "as a tribute from all nations," to the memory of Dr. Jenner for his discovery of vaccination as a preventive of smallpox. The committees appointed in this country to solicit subscriptions are, Drs. John C. Warren, John Ware and James Jackson, of Boston; Drs. Martyn Paine, Horace Green and Chas. A. Lee, of New York; and Drs. Geo. B. Wood, Robley Dunglison and T. D. Mütter, of Philadelphia. The two first-named committees have decided upon limiting the subscriptions to $1 each; but the Philadelphia committee have not thought it expedient thus to limit them, and they are therefore ready to receive the most liberal as well as the smallest donations. As the benefits of this great discovery extend to all classes of the community and to all climes, it is intended that the subscriptions shall not be confined to the medical profession, and all are therefore invited to contribute. We hope a liberal spirit will be manifested in this country, and that a generous fund will in due time be forwarded to the committee in London.

Medical Charges.—An action commenced last spring at Dedham, by Dr. Fininly, a resident of Dorchester, against Mr. Newhall Martin, of Charlestown, for services rendered in visiting defendant's son twenty different times, a boy 9 years of age, which case was referred to a committee of doctors, viz., Drs. J. W. Bemis, Henry Lyon and J. H. Wetherbee, has been undergoing examination within a few days past, in Justice Griffith's office in Charlestown. The boy was afflicted with the hip disease. It appears that Fininly charged for the twenty visits $150. The defence showed that the plaintiff had been paid $27; that he promised to make the leg as good as the other; that the patient is now in as bad condition as ever; and that Fininly is not a regularly-practising physician, but rather a mathematical instrument maker.

We understand that the decision of the referees has been made, sealed, and passed over to the Clerk of the Court of Common Pleas of Norfolk, and at the next term of said court it will be made public.

To CORRESPONDENTS.—Dr. Parkman's report of an operation for Ovarian Dropsy, Dr. W. W. Reid on Reduction of Dislocations of the Femur, "Della" on the Fevers of Suffolk Co., N. Y., and Dr. Tukesbury's case of Triplets, are received, and will be inserted early.

Deaths in Boston—for the week ending Saturday noon, Dec. 13th, 75.—Males, 34—females, 41. Asthma, 1—accidental, 1—abscess, 1—disease of bowels, 1—disease of brain, 1—calculus, 1—consumption, 18—convulsions, 2—canker, 2—croup, 1—debility, 1—dysentery, 1—delirium tremens, 1—dropsy, 3—dropsy of brain, 2—exhaustion, 3—fever, 1—typhoid fever, 1—brain fever, 1—scarlet fever, 1—rheumatic fever, 1—lung fever, 5—gastritis, 1—disease of heart, 5—infantile, 4—disease of liver, 2—marasmus, 3—old age, 4—palsy, 1—smallpox, 1—teething, 3—unknown, 1.

Under 5 years, 27—between 5 and 20 years, 6—between 20 and 40 years, 13—between 40 and 60 years, 14—over 60 years, 15. Americans, 37; foreigners and children of foreigners, 38. The above includes 8 deaths at the City Institutions.

Postage on Medical Journals.—We congratulate the readers and patrons of medical journals, and of magazines in general, through the country, that we have at last at the head of the post-office department a man who dares to put forth the dictates of common sense and equity, in opposition to unreasonable and unjust, though long-established regulations, in regard to postage. It is hoped that the following remarks, in the Post-master General's Report for the present year, will not be lost upon Congress—but that they will hereafter abolish the absurd distinction between "newspaper" and "periodical" postage, and thus take away from the assistants in the department at Washington the power of deciding that a monthly octavo, stitched and covered, in that city, is a *newspaper*, while unstitched and uncovered weekly octavos in other cities are not so. Here is what Mr. N. K. Hall says—and his remarks are sensible and to the point. The particular instances to which we have alluded, must have been presented to him. He also recommends abolishing the numerous rates, according to distance, on newspapers under the present law.

"It is difficult to assign a sufficient reason for charging upon such periodicals as the reviews, the numerous magazines, and theological, medical, and law journals, more than three times the amount of postage charged for the same distance on an equal weight of newspapers. Such periodicals are less ephemeral than the ordinary newspapers, and certainly not less beneficial in their influence. The same rates of postage, according to their weight, would be just and equitable, would simplify the accounts of the Department, and relieve it from the perplexing and often invidious duty of discriminating between different publications, and declaring one a newspaper and another *not* a newspaper, in cases where little difference can be perceived, and where the changed character of the next number of both might render it proper, in respect to such numbers, to reverse both decisions."

Births and Deaths in New Jersey.—The State of New Jersey is divided into 20 counties, and these are again subdivided into 185 townships, with a population, according to the *census* taken this year, of 489,333 souls. Returns have been sent to the office of the Secretary of State, from 131 townships in 19 counties, having a population of 357,652; and this amount of population in 131 townships, we may observe, is in fair proportion to the former. The number of births returned in these townships amounts to 9963, and the deaths to 5040. The ratio of deaths to the amount of population being 1 in 71¼, or 1.41 per cent., and the ratio of births to the deaths as (within a fraction of) 2 to 1. By the *census* returns, the number of deaths in the whole State amounts to 6467; and this too is in fair proportion with the above, giving a ratio to the whole population of 1 in 75⅜, or 1.32 per cent.

This rate of mortality compares well with the larger cities of the land: that of Boston being 1 in 45; Philadelphia, 1 in 42.03; and New York, 1 in 37.02; while Newark, in this State, gives 1 in 85, and Trenton 1 in 77.

Still, although the rate of mortality is lower than the cities just mentioned, yet it appears by the *census* returns that the rate in Pennsylvania is lower than that of New Jersey—the former being 1 in 81, or 1.27 per cent. of the whole population.—James Paul, M.D., *in New Jersey Medical Reporter.*

MEDICAL JOURNAL ADVERTISING SHEET.

BOYLSTON MEDICAL SCHOOL. Incorporated, 1847.—The Fall Session of this School will commence on the first of September, 1851. Its object is to give as complete a course of instruction by recitations, lectures and practical study, as can be given in this country in a period of three years. The plan of the School differs from that of any other School in the country, and with the advantages held out by them, the instructers hope to send into the profession thorough students only.

SPECIAL COURSES OF LECTURES

are delivered before the School upon

Diseases of the Eye by *Dr. Williams.*
Diseases of the Ear by *Dr. E. H. Clarke.*
Minor Surgery and Bandaging by *Dr. H. G. Clark.*
Auscultation and Percussion by *Dr. Thayer.*

Further information may be obtained by application to any of the instructers.

JOHN BACON, JR., M.D., Instructer in Chemistry and Toxicology, 20 Crescent Place.

CHARLES E. BUCKINGHAM, M.D., *Physician to the House of Industry*, Instructer in Obstetrics and Diseases of Women and Children, 8 Harrison Avenue.

EDWARD H. CLARKE, M.D., Instructer in Materia Medica and Therapeutics, and Aural Surgery, 21 Rowe street.

W. HENRY THAYER, M.D., Instructer in Pathology and Legal Medicine.

HENRY G. CLARK, M.D., *one of the Surgeons of the Massachusetts General Hospital*, Instructer in Principles and Practice of Surgery, 32 Salem street.

HENRY W. WILLIAMS, M.D., Instructer in Principles and Practice of Medicine, and Opthalmic Surgery, 10 Essex street.

GEORGE H. GAY, M.D., Instructer in Anatomy, Hollis street, corner of Tremont.

JOHN C. DALTON, JR., M.D., *Professor of Physiology at the Buffalo Medical College*, Instructer in Physiology and Microscopy.

Catalogues containing the plan and objects of the School, may be had on application at the bookstore of George W. Briggs, 376 Washington street, under the room of the School; at the bookstore of Tickner, Reed & Fields, corner of Washington and School streets; and at Joseph Burnett's, Apothecary, 33 Tremont Row.

WINSLOW LEWIS, *President.*
Boston, Aug. 20, 1851. tf

MEDICAL PRESCRIPTIONS.—Compounded day and night by PHILBRICK, CARPENTER & CO., Dispensers, 160 Washington street, Boston.
jy 16

TANNIC ACID.—American, English and German Tannic Acid of superior quality, for sale by PHILBRICK, CARPENTER & CO.,
Chemists, and Physicians' Druggists,
Oct. 16. 160 Washington st.

COPARTNERSHIP NOTICE.—The Copartnership heretofore existing between the subscribers under the style and name of *Philbrick & Trafton*, is this day dissolved by mutual consent.

The business of the late firm will be settled by C. R. Philbrick, at 160 Washington street.

C. R. PHILBRICK,
June 12, 1851. C. T. TRAFTON.

The undersigned have this day formed a Copartnership, under the firm of *Philbrick, Carpenter & Co.*, and will continue the Drug Business heretofore conducted by Philbrick & Trafton, at 160 Washington street, Boston.

SAM'L R. PHILBRICK,
BENONI CARPENTER,
June 13, 1851. LUTHER ATWOOD.
June 18—tf.

CHLOROFORM, Concentrated Chloric and Sulphuric Ethers, for inhalation. Manufactured and sold by PHILBRICK, CARPENTER & CO., Chemists and Physicians' Druggists. Nov. 6.

PURE COD LIVER OIL.—Sold by PHILBRICK, CARPENTER & CO., Chemists and Physicians' Druggists, 160 Washington street, Boston.
Oct. 16.

SUPERIOR GUMS, RESINS, &c.—Socotrine Aloes, Ammoniac, Guaiac, Myrrh, True Burgundy Pitch, sold by
Nov. 6. PHILBRICK, CARPENTER & CO.

VERATRIA, Aconitine, Salts of Morphia, and other Chemicals, from the celebrated chemist, Morson, sold by PHILBRICK, CARPENTER & CO. Nov. 13.

PURE COD LIVER OIL, carefully prepared only from fresh and healthy livers, by Joseph Burnett, Apothecary, No. 33 Tremont Row, Boston.

Dr. J. C. B. Williams, an eminent English physician, after prescribing it in 400 cases of consumption (in 250 of which he preserved full notes), states in the London Journal of Medicine—"As the result of experience, confirmed by a rational consideration of its mode of action, the *pure fresh* oil from the liver of the cod is more beneficial in the treatment of pulmonary consumption, than any other agent, medicinal, dietetic, or regimenal, that has yet been employed." June 18—tf.

ELIXIR OF OPIUM—Made from the formula of the Philadelphia Journal of Pharmacy, and is intended to be a substitute for the "popular" medicine called McMunn's Elixir. This is a preparation of Opium without Narcotine, and the strength is the same as Tinct. Opii. Manufactured by
PHILBRICK, CARPENTER & CO.
Successors to PHILBRICK & TRAFTON, *Chemists.*
July 23.

GLASS WARE of every description, including German Bottles with accurately ground stoppers, from 1-4 oz. to one gallon. Also, wide and narrow mouthed Phials of white and green glass, of every size and variety, for sale in quantities to suit Physicians, by PHILBRICK, CARPENTER & CO.
Nov. 13

WINE OF COLCHICUM ROOT—Sold by PHILBRICK, CARPENTER & CO.
Nov. 13.

TOBACCO OINTMENT, COMPOUND.—Prepared and sold by PHILBRICK, CARPENTER & CO., Chemists, 160 Washington st., Boston.
Nov. 31

NEW PREPARATIONS.—Tannate of Quinine, Chloride of Sulphur, Chloride of Arsenic, manufactured and sold by
Oct. 16. PHILBRICK, CARPENTER & CO.

CUCUMBER OINTMENT.—Prepared and sold by PHILBRICK, CARPENTER & CO.
Oct. 16.

KOUSSO—Received by PHILBRICK, CARPENTER & CO. July, 1851.

MANGANESE.—Sulphate, Carbonate, Chloride, Iodide, Tartrate, Malate, Acetate and Tannate, Syrup Iodide Manganese.
Manufactured and sold by
PHILBRICK, CARPENTER & CO.
Manganese and its preparations have been used in France with great advantage in cases of Chlorosis, Phthisis, Scrofula, Scirrhus, Constitutional Syphilis, &c. &c. Observations and results may be found in Braithwaite's Retrospect, No. XX.
O16

CANTHARIDAL COLLODION.—A new Epispastic Remedy, and substitute for the ordinary preparation of Cantharides. It is speedy, convenient and powerful; can be applied to any portion of the body, and remain entirely unaffected by the movements of the patient. It requires the employment of neither leather or linen as in the use of the ordinary vesicating agents. Manufactured and for sale by PHILBRICK, CARPENTER & CO., *Druggists,*
Jan. 23.—tf 160 Washington st.

EXTRACT OF HOP and Fluid Ext. of Pink and of Senna, Valerian, Rhubarb and Buchu. Manufactured and sold by PHILBRICK, CARPENTER & CO., Physicians' Druggists.
Nov. 6.

IMPROVED ARTIFICIAL LEGS.—Price, below the Knee, $45,00; above the Knee, $85,00. Also, artificial *Hands* and *Arms*, from $35,00 to $70,00 (all limbs warranted). These limbs are made useful to work at any employment, with our Improved Spring Instruments, which are attached or detached to and from the arm in one moment.

☞ On the receipt of accurate measurement, a limb can be sent to any part of the Union or Canada, as good fit warranted in all cases.

(Established 1849.) JAMES MILLER & CO
Many years with Sheldrake, Birg & Co., London, Surgical and Anatomical Mechanicians, 21-2 Brom field street, (up stairs) Boston.

References.—Drs. J. C. Warren, M. S. Perry, J. Mason Warren, S. D. Townsend, D. H. Storer, and J. V. C. Smith, Editor of the Boston Medical and Surgical Journal. Jan. 1.—eâdw1yr

MEDICAL JOURNAL ADVERTISING SHEET.

THE

Boston Medical and Surgical Journal

IS PUBLISHED EVERY WEDNESDAY,

At 184 Washington St., corner of Franklin St.

J. V. C. SMITH, M.D., EDITOR.

DAVID CLAPP, PUBLISHER.

Price—Three dollars a year, in advance; after three months, $3.50; if not paid within the year, $4. For a single copy, 8 cents.